CONTENTS OF VOLUME 12

NUMBER 1

An Integral Representation for the Fields in Electromagnetic Scattering Problems 1
E. L. Roetman, R. P. Kochhar, and G. L. Hower

Multifunctional and Low RCS Nonreciprocal Microstrip Antennas 17
Hung-Yu Yang, Jesse A. Castaneda, and Nicolaos G. Alexopoulos

An Approximate Skew Incidence Diffraction Coefficient for an Impedance Wedge 33
Hasnain H. Syed and John L. Volakis

A Review and Comparison of Some Asymptotic Techniques for Calculating the Wide-angle Radiation Pattern of Paraboloid Reflector Antennas 57
P. J. I. de Maagt, J. Chen, and M. H. A. J. Herben

Electric Current Basis Functions for Curved Surfaces 77
Stephen Wandzura

Modified Geometrical Optics and Diffraction Effects at the Electromagnetic Scattering by an Inhomogeneous Plasma 93
S. V. Krestjaninov, A. M. Lebedev, V. A. Permjakov, and I. G. Jakushkin

A Biconjugate Gradient FFT Solution for Scattering by Planar Plates 105
Jian-Ming Jin and John L. Volakis

NUMBER 2

Current Waves in a Straight Thin Wire Resonator with Finite Conductivity 121
P. Y. Ufimtsev and A. P. Krasnozhen

Scattering From a Straight Thin Wire Resonator 133
P. Y. Ufimtsev and A. P. Krasnozhen

Electromagnetic Field and Conduction Current Equivalence in the Lorentz and Coulomb Gauges 147
Robert D. Nevels and Zuoguo Wu

Resonant Frequencies in an Electromagnetic Spherical Cavity with an Eccentric Inner Electrically Small Sphere **155**
John A. Roumeliotis, John D. Kanellopoulos, and John G. Fikioris

Propagation Characteristics of Dielectric Waveguides of Double Step Permittivity with an Arbitrary Eccentricity **171**
S. Paleocrassas, C. N. Capsalis, and N. K. Uzunoglu

Radiation From a Monopole Antenna Covered by a Finite Height Dielectric Cylinder **185**
D. I. Kaklamani, C. N. Capsalis and N. K. Uzunoglu

NUMBERS 3–4

Scattering of Beltrami Fields by Anisotropic Impedance Spheres **217**
Balasubramaniam Shanker and Akhlesh Lakhtakia

Radiation of a Dipole in an Infinite Triaxial Anisotropic Medium **231**
D. I. Kaklamani and N. K. Uzunoglu

Electromagnetic Scattering by a Periodic Surface with a Wedge Profile **247**
David A. Hill

An Asymptotic Feature of Corner Waves Scattered by Polygonal Plates **265**
M. V. Vesnik and P. Y. Ufimtsev

The Natural Current Expansion Approach to the Numerical Analysis of Finite Arrays **273**
L. Carbonini

Introduction to Section Dedicated to Professor Raj Mittra **285**
Tatsuo Itoh

Review of Current Status and Trends in the Use of Integral Equations in Computational Electromagnetics **287**
Donald R. Wilton

Parallel Decomposition Methods for the Solution of Electromagnetic Scattering Problems **343**
Tom Cwik

Analysis and Modeling of Interconnects for High-Speed Digital Applications **359**
Jose E. Schutt-Aine

Microstrip Antennas **381**
Daniel H. Schaubert

Time Domain Solution of Electromagnetic Problems 403
Wai Lee Ko

FOLLOWING PAGE 433
Title Page to Volume 12
Contents of Volume 12
Author Index to Volume 12
Subject Index to Volume 12